

REMARKS/ARGUMENTS

Applicants appreciate the courtesy of the Examiner for the telephonic interview that was conducted on January 12, 2005. During the interview, the distinctions of the claims as now amended herein were discussed in relation to the art cited in the final Official Action. It is believed that the claims as amended herein are fully distinguished from the cited art, as discussed as follows.

Claims 2-4, 6-8, 10-12 and 18-19 are pending in the application with the present amendments. In the Official Action, claims 2-3, 6-7, 10-11 and 18-19 were rejected under 35 U.S.C. 103(a) as being obvious over U.S. Patent No. 6,490,670 to Collins et al. ("*Collins*") in view of U.S. Patent No. 6,032,160 to Lehman ("*Lehman*"). In addition, claims 4, 8 and 12 were rejected as being obvious over *Collins*, in view of *Lehman* and further in view of U.S. Patent No. 6,185,666 to Murray et al. ("*Murray*"). For the reasons set forth below, applicants respectfully submit that the presently amended claims are fully distinguished over the references cited by the Examiner. Accordingly, the claims are believed to be allowable over the cited art.

As amended herein, claim 2 more particularly recites that which is considered to be a novel and unobvious aspect of a partition creating method according to the present invention. In particular, claim 2 now recites actions to be performed when an empty region having the requested size does not exist, but there is an empty region having a size $2k$ times as large as the requested size (where k is a natural number). As now recited in claim 2, the actions include:

a) dividing the empty region in half to obtain two divided empty regions;

b) when the size of one of the divided empty regions is equal to the requested size, disposing the partition in the one divided empty region;

c) when the size of each of the divided empty regions is at least twice as large as the requested size, assigning a single one of the divided empty regions obtained in step a) as the empty region; and

d) repeating steps a) through c) *only* as to the single divided empty region assigned in step c) until the size of one of the divided empty regions obtained by repeating step a) is equal to the requested size and the partition is disposed in the one divided empty region.

As an example of operation according to amended claim 2, as disclosed in applicants' specification at paragraphs [0048] through [0050], when the requested size of the partition is 2, and the smallest available empty region has a size 8, the empty region is divided into two size 4 empty regions. Then, one of the size 4 empty regions is divided into two size 2 empty regions, and one of the size 2 empty regions is used to create the requested partition. As a result, the original size 8 empty region is divided into one size 4 empty region, one size 2 empty region, and the size 2 region that is assigned to create the partition. Two empty regions remain after the new partition is created, one having size 4, and one having size 2. Thus, one of the regions resulting from the partition creating method has a size (4) which is larger than the size (2) of the requested partition. In addition, it can be seen that, when the requested size of the partition is 2 and the smallest available empty region has size 16, the size 16 empty region is divided into two size 8 empty regions, of which one is divided into two size 4 empty regions. One of the size 4 empty regions is then divided into one size 2 region into which the partition is then disposed, and another one of the size 2 regions remains as an

empty region. In this example, three empty regions remain after the size 2 partition has been created, one having a size 8, another one having size 4, and another one having size 2. Thus, according to the disclosed method, relatively large-sized empty regions remain available for allocation to accommodate a larger-sized partition if such is requested thereafter.

The combination of *Collins* and *Lehman* neither teaches nor suggests these features of the presently claimed invention. *Collins* (col. 5, lns. 9-31, lns. 50-63) merely describes a method in which a chunk of memory is divided into a number of memory blocks each having the same size, that is, the size of the requested object. Thus, according to the method described in *Collins*, when the object of size 2 is requested and the next larger empty region has size 8, the size 8 empty region would be divided into four equal-sized empty regions each having size 2. One of the size 2 empty regions is assigned to the requested object. However, three relatively small empty regions each having size 2 remain as a result of the memory assignment, instead of one larger (size 4) empty region and one size 2 empty region, as results from the method as claimed in claim 2.

Moreover, neither *Lehman* nor *Murray* provide the teachings which *Collins* lacks with respect to the presently amended claims. *Lehman* merely describes a storage allocation method based on assignment of memory blocks whose sizes correspond to powers of two. *Murray* merely describes a method of merging computer partitions.

Similar recitations are found in the other pending independent claims 6, 10 and 18, which are believed to be allowable for the same reasons as discussed above. Moreover, the remaining claims of the application are allowable by virtue of the dependency from the above-discussed independent claims.

Support for the present amendments is provided, inter alia, at paragraphs [0046] through [0050] and FIGS. 4 through 5D.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue. If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that he telephone applicants' attorney at (908) 654-5000 in order to overcome any additional objections which he might have.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

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Respectfully submitted,

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